

## ABSTRACT OF THE DISCLOSURE

A manufacturing method and its structure of a gallium nitride-based blue light emitting diode (LED) ohmic electrodes and a transparent conductive layer (TCL), which forms a thin composite layer upon P type gallium nitride and a composite thin film ohmic electrodes upon P type gallium nitride epitaxial layer and N type gallium nitride epitaxial layer, respectively. Heat treatment is applied to said composite thin film layer and composite thin film ohmic electrodes to obtain the optimized ohmic properties and transparency so as to uniformly disperse the injected current throughout the N type electrode.